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KD-Validated Anti-Phospholipid Scramblase 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1691

Specification

KD-Validated Anti-Phospholipid Scramblase 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	O15162
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 35 kDa , observed, 35 kDa KDa**
Gene Name	**PLSCR1**
Aliases	**Phospholipid Scramblase 1; MMTRA1B; Ca(2+)-Dependent Phospholipid Scramblase 1; Erythrocyte Phospholipid Scramblase; Mg(2+)-Dependent Nuclease; PL Scramblase 1; EC 3.1.-.-; MmTRA1b**
Immunogen	**A synthesized peptide derived from human Scramblase 1**

KD-Validated Anti-Phospholipid Scramblase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**5359**

Other Names
Phospholipid scramblase 1, PL scramblase 1, Ca(2+)-dependent phospholipid scramblase 1, Erythrocyte phospholipid scramblase, Mg(2+)-dependent nuclease, 3.1.-.-, MmTRA1b, PLSCR1

KD-Validated Anti-Phospholipid Scramblase 1 Rabbit Monoclonal Antibody - Protein Information

Name PLSCR1

Function
Catalyzes calcium-induced ATP-independent rapid bidirectional and non-specific movement of phospholipids (lipid scrambling or lipid flip-flop) between the inner and outer leaflet of the plasma membrane resulting in collapse of the phospholipid asymmetry which leads to phosphatidylserine externalization on the cell surface (PubMed:10770950, PubMed:18629440, PubMed:23590222, PubMed:23659204, PubMed:24343571, PubMed:24648509, PubMed:29748552, PubMed:32110987, PubMed:<a href="http://www.uniprot.org/citations/8663431"

target="_blank">8663431, PubMed:9218461, PubMed:9485382, PubMed:9572851). Mediates calcium-dependent phosphatidylserine externalization and apoptosis in neurons via its association with TRPC5 (By similarity). Also exhibits magnesium-dependent nuclease activity against double- stranded DNA and RNA but not single-stranded DNA and can enhance DNA decatenation mediated by TOP2A (PubMed:17567603, PubMed:27206388). Negatively regulates FcR-mediated phagocytosis in differentiated macrophages (PubMed:26745724). May contribute to cytokine-regulated cell proliferation and differentiation (By similarity). May play a role in the antiviral response of interferon (IFN) by amplifying and enhancing the IFN response through increased expression of select subset of potent antiviral genes (PubMed:15308695). Inhibits the functions of viral transactivators, including human T-cell leukemia virus (HTLV)-1 protein Tax, human immunodeficiency virus (HIV)-1 Tat, human hepatitis B virus (HBV) HBx, Epstein-Barr virus (EBV) BZLF1 and human cytomegalovirus IE1 and IE2 proteins through direct interactions (PubMed:22789739, PubMed:23501106, PubMed:25365352, PubMed:31434743, PubMed:35138119). Also mediates the inhibition of influenza virus infection by preventing nuclear import of the viral nucleoprotein/NP (PubMed:29352288, PubMed:35595813). Plays a crucial role as a defense factor against SARS-CoV-2 independently of its scramblase activity by directly targeting nascent viral vesicles to prevent virus-membrane fusion and the release of viral RNA into the host-cell cytosol (PubMed:37438530).

Cellular Location
Cell membrane; Single-pass type II membrane protein. Cell membrane; Lipid-anchor; Cytoplasmic side. Nucleus. Cytoplasm. Cytoplasm, perinuclear region Note=Localizes to the perinuclear region in the presence of RELT (PubMed:22052202). Palmitoylation regulates its localization to the cell membrane or the nucleus; trafficking to the cell membrane is dependent upon palmitoylation whereas in the absence of palmitoylation, localizes to the nucleus (PubMed:12564925)

Tissue Location
Expressed in platelets, erythrocyte membranes, lymphocytes, spleen, thymus, prostate, testis, uterus, intestine, colon, heart, placenta, lung, liver, kidney and pancreas. Not detected in brain and skeletal muscle.

KD-Validated Anti-Phospholipid Scramblase 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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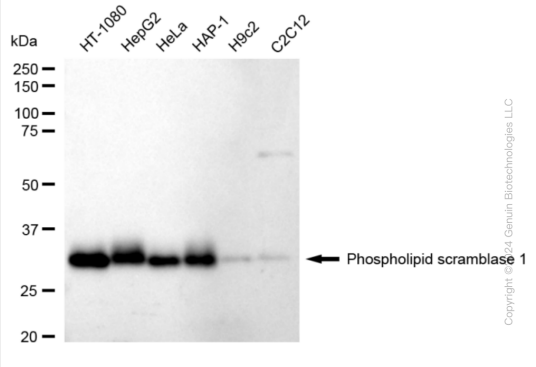
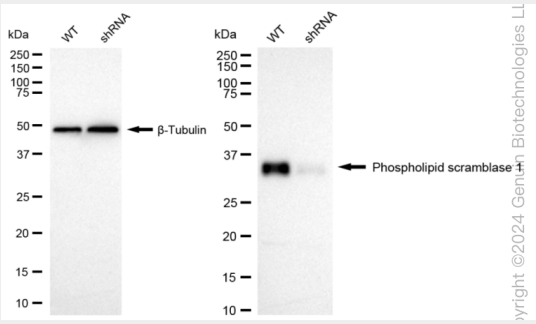
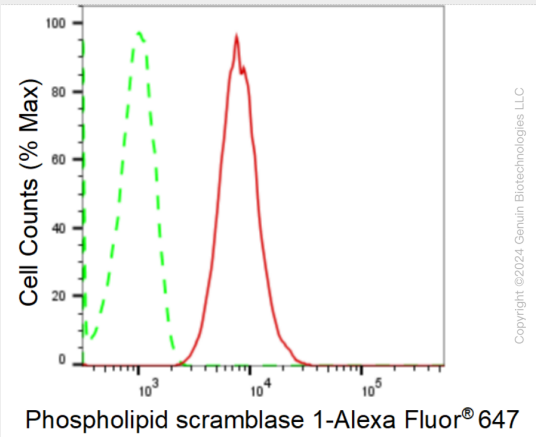
KD-Validated Anti-Phospholipid Scramblase 1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Phospholipid scramblase 1 antibody (Cat#AGI1691). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Phospholipid scramblase 1 antibody (Cat#AGI1691, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Phospholipid scramblase 1 antibody (Cat#AGI1691). Phospholipid scramblase 1 expression in wild type (WT) and Phospholipid scramblase 1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Phospholipid scramblase 1 antibody (Cat#AGI1691, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Phospholipid scramblase 1 expression in HT-1080 cells using anti-Phospholipid scramblase 1 antibody (Cat#AGI1691, 1:2,000). Green, isotype control; red, Phospholipid scramblase 1.